



September 15, 2004

TO: Linda Q. Smyth
FROM: Gary D. Chevalier
SUBJECT: Student Enrollment Potential in the Fairlee Area

The following information is provided in response to your request for a comprehensive review of development in the area of the Fairlee rezoning. This review is focused on the attendance areas of Fairhill, Marshall Road and Mosby Woods Elementary Schools.

Current Conditions

Properties comprising the Fairlee rezoning are currently assigned to Mosby Woods Elementary, Jackson Middle and Oakton High School. Enrollment at Mosby Woods during the 2003-04 school year exceeded the school's program capacity by about 100 students. Enrollment is projected to increase by almost 200 students over the next five years due to the anticipated redevelopment of the Fairlee Subdivision and the phase-in of a new center for gifted and talented students. A ten classroom modular addition for Mosby Woods was approved in the 2003 School Bond Referendum and should be completed by September 2005. This addition will increase capacity at Mosby Woods by approximately 250 student spaces. Modular additions are much like conventional "bricks and mortar" additions, they contain groups of classrooms accessed by a center hallway and include bathrooms and other support facilities the school may require. The classrooms are generally the same size and configuration as conventional classrooms and have the same capacity. The difference is they are made from prefabricated units that are assembled at the school site. Using modular construction allows the school system to provide new capacity in less time and at approximately half the cost of conventional construction. The Marshall Road Elementary School attendance area is adjacent to the Fairlee development. Enrollment at Marshall Road was at capacity during the past school year and is expected to increase about 25 students over the next five years. A 12 classroom modular addition at Marshall Road is included in the FY2005-FY2009 Capital Improvement Program as an unfunded requirement. This addition would increase capacity at Marshall Road by approximately 300 spaces, which could help to relieve projected overcrowding at schools in the study area. The Fairhill Elementary School attendance area is also adjacent to Fairlee. Enrollment at Fairhill was about 130 students below capacity during the 2003-04 school year; enrollment is projected to increase by about 35 students over the next five years as some of the development identified in this study is completed.

Enrollment at Jackson Middle School exceeded capacity by about 160 students during the 2003-04 school year; enrollment is projected to decline about 35 students by school year 2008-09. A ten-classroom addition to Jackson approved in the 2003 School Bond Referendum will provide approximately 300 additional student spaces, which will be completed during the 2006-07 school year.

A small portion of the study area attends Thoreau Middle School he study area boundary, therefore enrollment trends for these schools include impacts from developments outside of the study area. Essentially all of the growth at Thoreau is from outside this study's boundary.

Oakton High School enrollment was about 45 students below capacity in the 2003-04 school year; enrollment at Oakton is projected to increase, exceeding capacity by about 55 students in the 2008-09 school year. Boundary adjustments or temporary classrooms may be utilized to address the overcrowding at this facility. Madison and Falls Church High Schools also serve portions of the study area. Enrollments at both schools were below capacity in 2003-04 and are projected to remain at or below capacity through the 2008-09 school year.

Development Impacts

Countywide average student yield ratios were used to determine the public school enrollment impact of new dwelling units in the study area. Current student yield ratios from two existing projects in the Vienna Transit Station Area were reviewed. The projects are in the Hunters Branch area and the Virginia Center area. Student yield ratios from these projects are somewhat lower than the countywide average: the townhouses reviewed had K-12 ratios ranging from .063 to .244, the countywide average is .372; high-rise units had ratios ranging from .013 to .074 compared to the county average of .102. Although these ratios could change as the projects age over time, it appears countywide averages are, at least initially, somewhat higher than what is actually being generated by the transit station area developments.

The attached tables summarize enrollment impacts of the Fairlee redevelopment as well as anticipated enrollment from the following: projects that are zoned but not built, projects that are pending, areas of increased comprehensive plan density not yet in the development pipeline, and area plan review nominations. Projects currently zoned but not built could generate an additional 139 elementary, 36 middle and 79 high school students. The most recent plan for redevelopment of Fairlee (approximately 340 townhouse and 2,015 high-rise dwelling units) could generate an additional 198 elementary, 40 middle and 93 high school students. Pending cases and increased plan densities in the Merrifield Town Center area are expected to yield approximately 80 elementary, 14 middle and 36 high school students. Less certain is the impact of Area Plan Review (APR) nominations which may or may not be approved, or which may be approved at reduced densities. There are four APR nominations in the study area; however, only one (APR 04-II-1V) would result in a significant increase in residential units. Because of the uncertainty associated with final approval of this nomination, student impacts are provided in a range representing development at the full density requested and development at approximately half the density requested. With this approach to calculating enrollment impact, the APR nominations could be expected to yield from 91 to 176 elementary, 21 to 39 middle and 45 to 88 high school students.

School Capacity

The attached tables also display program capacities for each school in the study area. As mentioned previously, several capital improvements are planned for these schools. At the elementary level, a ten-classroom modular addition to Mosby Woods will be completed for the 2005-06 school year.

This addition will increase capacity at Mosby Woods by about 250 student spaces. A planned but unfunded twelve-classroom addition to Marshall Road will increase capacity by approximately 300 student spaces. Total capacity of the three elementary schools in the study area, including the two modular additions will be approximately 2,150 student spaces. A ten-classroom addition to Jackson Middle School will increase capacity by roughly 300 student spaces. Total middle school capacity in the area will be approximately 1,925 student spaces. High schools serving the study area are operating at or below their program capacity; no additions are planned for these facilities at this time. High school capacity for schools serving the study area is roughly 6,200 student spaces.

Official "core" capacities for school facilities do not exist. However, the ability of each school's support areas to accommodate the additional capacity provided by modular additions was reviewed as part of the study. Maximum capacities for the existing buildings were calculated using the state rating formula. Current program capacities were increased to include the anticipated additional capacity provided by the modular buildings. In each case the adjusted capacity would be in line with the state maximum for the existing building, thus support facilities should be adequate to support the potential capacity increases.

Enrollment and Capacity Comparison

Actual enrollment at each school as of June 2004 was used as a starting point for this analysis. Additional enrollment from new development was added to the actual enrollment to determine future school capacity requirements. The enrollment impact of phasing-in a new center for gifted and talented students at Mosby Woods Elementary School was also included in the analysis.

Elementary level enrollment, adjusted for students from zoned but not built properties and students from the Fairlee redevelopment, is expected to reach 2,041 students. Combined capacity of the three schools in the study, including the modular additions at Mosby Woods and Marshall Road is expected to be 2,150 students, or roughly 100 more than expected enrollment. Including students that could be generated from pending cases and APR nominations increases the expected elementary enrollment by 171 to 256 students, for a total of 2,212 to 2,297 elementary students in the study area. This enrollment would exceed available capacity by 62 to 147 students.

Middle school enrollment, including the impact from approved rezonings and Fairlee is expected to be 1,904 students. Middle school capacity, including the ten-classroom addition to Luther Jackson will be approximately 1,925 student spaces about 21 spaces above enrollment. Including students from pending cases and APR nominations raises the expected enrollment to a range of 1,939 to 1,957 students. Enrollment at this level would exceed capacity by 14 to 32 student spaces.

Enrollment at the high school level, including students from approved rezonings and the Fairlee redevelopment, would be 5,558 students. High school capacity is expected to be 6,200 student spaces. Including students from pending cases and APR nominations increases high school enrollment by 81 to 124 students, however, high school capacity will still exceed enrollment by more than 500 student spaces.

Considerations

Although planned elementary school capacity for the study area will accommodate enrollment expected from the approved rezoning cases and redevelopment of Fairlee, there could be a capacity deficit if all pending cases and APR nominations are approved at the densities requested. Also, enrollment and capacity imbalances will exist among the three schools. For example, Mosby Woods Elementary, with its current attendance area, will need to absorb enrollment growth from both the new G/T Center as well as students generated by the Fairlee redevelopment and approved rezoning cases. The planned expansion of Mosby Woods will not provide enough capacity to accommodate the schools potential enrollment, and the site will not accommodate expansion beyond the ten-classroom addition that is planned. A twelve-classroom addition at Marshall Road will provide enough capacity to accommodate some of the expected growth in the study area. The Fairhill Elementary School site could also accommodate a modular addition if needed to address future enrollment growth. Adjustments to the attendance area boundaries of these elementary schools will be required to balance enrollment with available capacity. A site for a new elementary school is available in the Stonehurst/Circle Towers area if needed.

Both middle and high school facilities in the study area should have sufficient capacity to accommodate potential enrollment growth in the study area. Future renovation of Thoreau Middle School could provide some additional capacity to help relieve the minor overcrowding that may occur at the middle school level. Adjustments to the high school attendance area boundaries may be required to help balance utilization of these facilities.

GC/ds
Attachments

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